

Old #	Standard	ACADEMIC		
		AA		SPEAKING AND LISTENING
AA8	Demonstrate understanding of basic interpersonal communication (listening, written, oral, etc.)	AA	1	Utilize effective verbal and non-verbal communication skills
AA13	Organize and deliver a persuasive oral presentation	AA	2	Participate in conversation, discussion, and group presentations
AA14	Demonstrate good speaking and presentation characteristics			
ED2	Interpret and clarify directions prepared by others	AA	3	Communicate and follow directions/procedures
ED3	Communicate with customers	AA	4	Communicate effectively with customers and co-workers
ED5	Identify appropriate communication methods			
		AB		READING AND WRITING
		AB	1	Locate and interpret written information
AA1	Read and process information and follow instructions	AB	2	Read and interpret workplace documents
AA2	Read material and describe concepts			
		AB	3	Identify relevant details, facts, and specifications
AA5	Write with accuracy, brevity, and clarity	AB	4	Record information accurately and completely
AA4	Use correct spelling, grammar, and punctuation	AB	5	Demonstrate competence in organizing, writing, and editing using correct vocabulary, spelling, grammar, and punctuation
AA3	Use correct terminology	AB	6	Demonstrate the ability to write clearly and concisely using industry specific terminology
ED4	Write steps of an occupational process using sentences and statements as appropriate			
		AC		CRITICAL THINKING AND PROBLEM SOLVING
		AC	1	Utilize critical-thinking skills to determine best options/outcomes (e.g., analyze reliable/unreliable sources of information, use previous experiences, implement crisis management, develop contingency planning)

EE1	Apply a system of problem solving	AC	2	Utilize innovation and problem-solving skills to arrive at the best solution for current situation
		AD		MATHEMATICS
AB1	Add, subtract, multiply, and divide for digit numbers with or without the use of a calculator	AD	1	Perform basic and higher level math operations (e.g., addition, subtraction, multiplication, division, decimals, fractions, units of conversion, averaging, percentage, proportion, ratios)
AB2	Apply basic math functions to solve problems			
AB7	Calculate with percents, rate, ratio, and proportion with the use of a calculator			
AB3	Compute between US and metric measurement systems	AD	2	Solve problems using measurement skills (e.g., distance, weight, area, volume)
AB4	Convert fractional measurement to decimal measurement			
AB5	Compute within measurement systems			
AB6	Document results of measurement activities and calculations			
AB9	Compute calculated measurements			
AB8	Same Verbiage	AD	3	Make reasonable estimates
		AD	4	Use tables, graphs, diagrams, and charts to obtain or convey information
		AD	5	Use deductive reasoning and problem-solving in mathematics
		AE		FINANCIAL LITERACY
		AE	1	Locate, evaluate, and apply personal financial information
		AE	2	Identify the components of a budget and how one is created
		AE	3	Set personal financial goals and develop a plan for achieving them
		AE	4	Use financial services effectively
		AE	5	Demonstrate ability to meet financial obligations
		AF		INTERNET USE AND SECURITY
		AF	1	Recognize the potential risks associated with Internet use

		AF	2	Identify and apply Internet security practices (e.g., password security, login, logout, log off, lock computer)
		AF	3	Practice safe, legal, and responsible use of technology in the workplace
		AG		INFORMATION TECHNOLOGY
AA7	Posses basic computer skills	AG	1	Use technology appropriately to enhance professional presentations
AA17	Demonstrate use of an industry-accepted work processing software package			
		AG	2	Demonstrate effective and appropriate use of social media
		AG	3	Identify ways social media can be used as marketing, advertising, and data gathering tools
		AH		TELECOMMUNICATIONS
		AH	1	Select and use appropriate devices, services, and applications to complete workplace tasks
		AH	2	Demonstrate appropriate etiquette when using e-communications (e.g., cell phone, e-mail, personal digital assistants, online meetings, conference calls)
		EMPLOYABILITY		
		EA		POSITIVE WORK ETHIC
EA3	Same Verbiage	EA	1	Demonstrate enthusiasm and confidence about work and learning new tasks
EA1	Demonstrate consistently punctual arrival	EA	2	Demonstrate consistent and punctual attendance
EA2	Document regular attendance			
		EA	3	Demonstrate initiative in assuming tasks
		EA	4	Exhibit dependability in the workplace
AA9	Implement new process steps given oral instructions	EA	5	Take and provide direction in the workplace
EA11	Follow directions and procedures			
EB5	Match employee responsibilities to employer expectations	EA	6	Accept responsibility for personal decisions and actions
		EB		INTEGRITY
		EB	1	Abide by workplace policies and procedures
		EB	2	Demonstrate honesty and reliability
EB3	Same Verbiage	EB	3	Demonstrate ethical characteristics and behaviors

EB8	Maintain confidentiality and sensitivity of company information	EB	4	Maintain confidentiality and integrity of sensitive company information
EC7	Explain the importance of a business reputation	EB	5	Demonstrate loyalty to the company
		EC		SELF-REPRESENTATION
EA4	Demonstrate appropriate dress and hygiene for successful employment	EC	1	Demonstrate appropriate dress and hygiene in the workplace
		EC	2	Use language and manners suitable for the workplace
EA5	Demonstrate the ability to act in a polite and respectful way towards co-workers	EC	3	Demonstrate polite and respectful behavior toward others
		EC	4	Demonstrate personal accountability in the workplace
		EC	5	Demonstrate pride in work
		ED		TIME, TASK, AND RESOURCE MANAGEMENT
EC1	Plan and manage work schedules	ED	1	Plan and follow a work schedule
EA13	Same Verbiage	ED	2	Work with minimal supervision
		ED	3	Work within budgetary constraints
EA6	Demonstrate the ability to complete tasks on time and accurately	ED	4	Demonstrate ability to stay on task to produce high quality deliverables on time
		EE		DIVERSITY AWARENESS
EB2	Identify the characteristics of a diverse workforce	EE	1	Recognize diversity, discrimination, harassment, and equity
EB6	Define discrimination, harassment, and equity			
EB7	Demonstrate non-discriminatory behavior			
		EE	2	Work well with all customers and co-workers
		EE	3	Explain the benefits of diversity within the workplace
		EE	4	Explain the importance of respect for feelings, values, and beliefs of others
		EE	5	Identify strategies to bridge cultural/generational differences and use differing perspectives to increase overall quality of work

		EE	6	Illustrate techniques for eliminating gender bias and stereotyping in the workplace
		EE	7	Identify ways tasks can be structured to accommodate the diverse needs of workers
		EE	8	Recognize the challenges and advantages of a global workforce
		EF		TEAMWORK
AA11	Contrast the roles of a team with the role of an individual	EF	1	Recognize the characteristics of a team environment and conventional workplace
EB1	Recognize the difference between a team environment workplace and a conventional workplace			
ED6	Identify components of group dynamics			
AA12	Perform techniques as a team leader	EF	2	Contribute to the success of the team
ED7	Demonstrate productive relationships within the work group			
AA10	Demonstrate the characteristics of a team player	EF	3	Demonstrate effective team skills and evaluate their importance in the workplace (e.g., setting goals, listening, following directions, questioning, dividing work)
		EG		CREATIVITY AND RESOURCEFULNESS
		EG	1	Contribute new ideas
		EG	2	Stimulate ideas by posing questions
		EG	3	Value varying ideas and opinions
		EG	4	Locate and verify information
		EH		CONFLICT RESOLUTION
AA6	Demonstrate knowledge of conflict resolution techniques	EH	1	Identify conflict resolution skills to enhance productivity and improve workplace relationships
		EH	2	Implement conflict resolution strategies and problem-solving skills
		EH	3	Explain the use of documentation and its role as a component of conflict resolution
		EI		CUSTOMER/CLIENT SERVICE
		EI	1	Recognize the importance of and demonstrate how to properly acknowledge customers/clients
EC5	Identify possible actions that may lead to customer dissatisfaction	EI	2	Identify and address needs of customers/clients

EC8	Identify possible actions that may be used to correct customer dissatisfaction			
		EI	3	Provide helpful, courteous, and knowledgeable service
		EI	4	Identify appropriate channels of communication with customers/clients (e.g., phone call, face-to-face, e-mail, website)
		EI	5	Identify techniques to seek and use customer/client feedback to improve company services
EC6	Identify the ways that the level of customer satisfaction may affect company success	EI	6	Recognize the relationship between customer/client satisfaction and company success
		EJ		ORGANIZATIONS, SYSTEMS, AND CLIMATES
AA16	Identify the organizational need for profit	EJ	1	Define profit and evaluate the cost of conducting business
EC9	Identify the effect of quality on profit			
		EJ	2	Identify "big picture" issues in conducting business
EC10	Identify the effects of continuous quality improvement	EJ	3	Identify role in fulfilling the mission of the workplace
		EJ	4	Identify the rights of workers (e.g., adult and child labor laws and other equal employment opportunity laws)
		EJ	5	Recognize the chain of command, organizational flow chart system, and hierarchy of management within an organization
		EK		JOB ACQUISITION AND ADVANCEMENT
EA7	Demonstrate the ability to make career decisions	EK	1	Recognize the importance of maintaining a job and pursuing a career
		EK	2	Define jobs associated with a specific career path or profession
		EK	3	Identify and seek various job opportunities (e.g., volunteerism, internships, co-op, part-time/full-time employment)
EA8	Prepare a resume and letter of application or interest	EK	4	Prepare a resume, letter of application, and job application
EA9	Complete an application for employment			
		EK	5	Prepare for a job interview (e.g., research company, highlight personal strengths, prepare questions, set-up a mock interview, dress appropriately)

EA10	Participate in an employment interview	EK	6	Participate in a job interview
		EK	7	Explain the proper procedure for leaving a job
		EL		LIFELONG LEARNING
		EL	1	Acquire current and emerging industry-related information
		EL	2	Demonstrate commitment to learning as a life-long process and recognize learning opportunities
		EL	3	Seek and capitalize on self-improvement opportunities
		EL	4	Discuss the importance of flexible career planning and career self-management
AA15	Demonstrate basic leadership skills	EL	5	Employ leadership skills to achieve workplace objectives (e.g., personal vision, adaptability, change, shared vision)
		EL	6	Recognize the importance of job performance evaluation and coaching as it relates to career advancement
EA12	Accept constructive criticism	EL	7	Accept and provide constructive criticism
		EL	8	Describe the impact of the global economy on jobs and careers
		EM		JOB SPECIFIC TECHNOLOGIES
		EM	1	Identify the value of new technologies and their impact on driving continuous change and the need for life-long learning
		EM	2	Research and identify emerging technologies for specific careers
		EM	3	Select appropriate technological resources to accomplish work
		EN		HEALTH AND SAFETY
		EN	1	Assume responsibility for safety of self and others
		EN	2	Follow safety guidelines in the workplace
		EN	3	Manage personal health and wellness
		OCCUPATIONAL		
		OA		ENERGY SOURCES
OA1	Same Verbiage	OA	1	Identify renewable and non-renewable energy sources and pathways of delivery
OA2	Same Verbiage	OA	2	Examine environmental impacts and efficiencies of energy sources
OA3	Same Verbiage	OA	3	Compare the efficiency of energy production from various sources
		OB		LUBRICANTS
OB1	Same Verbiage	OB	1	Classify lubricants by source, sustainability, and equipment compatibility
OB2	Same Verbiage	OB	2	Classify lubricants by SAE viscosity and API service classifications
OB3	Same Verbiage	OB	3	Select, use, and dispose of lubricants
		OC		HAND AND POWER TOOLS
OC1	Same Verbiage	OC	1	Identify and demonstrate safe use of measurement and layout tools
OC2	Same Verbiage	OC	2	Select, maintain, and use hand/power tools in service, construction, and fabrication
		OD		SERVICE ROUTINES

OD1	Same Verbiage	OD	1	Identify power unit and equipment lubrication frequency
OD2	Same Verbiage	OD	2	Ensure the presence and function of safety systems and hardware on tools and equipment
OD3	Same Verbiage	OD	3	Test and service electrical systems and check DVOM Basics
OD4	Same Verbiage	OD	4	Service filtration systems and maintain fluid levels on power units and equipment
OD5	Same Verbiage	OD	5	Adjust equipment, including belts and drives, chains and sprockets, and maintain fluid conveyance components, such as hoses, lines, and nozzles
OD6	Same Verbiage	OD	6	Maintain the cleanliness and appearance of power units and equipment to assure functionality
OD7	Same Verbiage	OD	7	Follow a preventive maintenance schedule for power units and equipment
		OE		EQUIPMENT OPERATION
OE1	Same Verbiage	OE	1	Identify power unit and equipment controls and instruments, along with their functions using operation manual/service manual
OE2	Same Verbiage	OE	2	Perform start-up and shut-down procedures on power units and equipment as specified in technical manuals
OE3	Same Verbiage	OE	3	Perform pre-operation inspection according to manufacturers' specifications and/or prevailing industry standards
OE4	Same Verbiage	OE	4	Demonstrate safe practices and regulations in the operation of power units and equipment
OE5	Same Verbiage	OE	5	Perform basic adjustments of equipment (e.g., shields, guards) for safe and efficient operation
		OF		ENGINE TROUBLESHOOTING
OF1	Same Verbiage	OF	1	Identify components and systems of internal combustion engines
OF2	Same Verbiage	OF	2	Utilize technical manuals and computer based diagnostics in engine analysis and repair
OF3	Same Verbiage	OF	3	Conduct a performance test on internal combustion engines to determine service and repair of basic spark, ignition, fuel, fire, and compression
OF4	Same Verbiage	OF	4	Describe the operation of internal combustion engines by types of fuel used
OF5	Same Verbiage	OF	5	Analyze and troubleshoot internal combustion engines
		OG		HYDRAULIC AND PNEUMATIC SYSTEMS
OG1	Same Verbiage	OG	1	Describe principles of hydraulic and pneumatic system operation
OG2	Same Verbiage	OG	2	Utilize symbols and schematic drawings in the maintenance of hydraulic and pneumatic systems (basic ISO symbols)
OG3	Same Verbiage	OG	3	Identify hydraulic and pneumatic system fittings and ports
		OH		ELECTRICAL SYSTEM TROUBLESHOOTING
OH1	Same Verbiage	OH	1	Apply the meaning and measurement of electricity, including amperage, voltage and wattage
OH2	Same Verbiage	OH	2	Identify the kinds and applications of electricity, including direct and alternating current
OH3	Same Verbiage	OH	3	Interpret basic electrical system symbols and diagrams
OH4	Same Verbiage	OH	4	Assess and repair malfunctioning electrical systems and components, such as battery and lighting
OH5	Same Verbiage	OH	5	Service a vehicle's heating and air-conditioning systems
		OI		STEERING, SUSPENSION, TRACTION, AND PERFORMANCE SYSTEMS

OI1	Same Verbiage	OI	1	Create sketches and plans of agricultural structures
OI2	Same Verbiage	OI	2	Identify symbols and drawing techniques used to develop plans and sketches (blueprint basics)
OI3	Same Verbiage	OI	3	Apply basic principles of design, fabrication, and installation of agricultural structures
OI4	Same Verbiage	OI	4	Prepare bills of materials to accompany plans and sketches
OI5	Same Verbiage	OI	5	Interpret scale measurement and dimension to develop plans and sketches
		OJ		STRUCTURAL PLANS
OJ1	Same Verbiage	OJ	1	Identify major parts of a construction drawing
OJ2	Same Verbiage	OJ	2	Identify and interpret different views of a construction drawing
		OK		CONSTRUCTION AND REPAIR
OK1	Same Verbiage	OK	1	Identify criteria in selecting materials in agricultural construction/fabrication
OK2	Same Verbiage	OK	2	Select types of materials, determine quantities, and estimate their costs associated with a specified project plan
		OL		CONSTRUCTION AND REPAIR
OL1	Same Verbiage	OL	1	Perform basic repair with wood and metal
OL2	Same Verbiage	OL	2	Identify electricity measurements and make measurement calculations (use of Ohms Law)
OL3	Same Verbiage	OL	3	Distinguish basic electrical circuits and component
OL4	Same Verbiage	OL	4	Calculate areas and volumes for coatings
OL5	Same Verbiage	OL	5	Paint or protect with coatings
OL6	Same Verbiage	OL	6	Identify insulation materials and methods to achieve desired R-value
OL7	Same Verbiage	OL	7	Insulate a structure
OL8	Same Verbiage	OL	8	Measure and calculate materials for concrete, brick, stone, or masonry units in agricultural construction
OL9	Same Verbiage	OL	9	Measure and calculate fencing materials
OL10	Same Verbiage	OL	10	Construct and/or repair fencing, including wood, static wire, electrical wire, and other fencing materials
OL11	Same Verbiage	OL	11	Identify kinds and characteristics of metal materials
OL12	Same Verbiage	OL	12	Distinguish welding processes, positions, and materials preparation
OL13	Same Verbiage	OL	13	Construct and/or repair metal structures and equipment using welding fabrication procedures, including those associated with SMAW, GMAW, GTAW, fuel-oxygen, and plasma arc torch methods
		OM		MONITORING ELECTRICAL SYSTEMS
OM1	Same Verbiage	OM	1	Discuss various types and sources of electricity
OM2	Same Verbiage	OM	2	Use volt and amp meters and continuity testers to demonstrate electricity principles
		ON		ELECTRICAL DESIGN
ON1	Same Verbiage	ON	1	Recognize common electrical symbols
ON2	Same Verbiage	ON	2	Read basic drawings for an electrical control system
ON3	Same Verbiage	ON	3	Identify hazards and safety practices in planning, installing, and using electricity
ON4	Same Verbiage	ON	4	Distinguish materials and tools used in electrical installation

ON5	Same Verbiage	ON	5	Identify the importance and use of computer-based systems in agriculture, food, and natural resources
		OO		GEOSPATIAL TECHNOLOGIES
OO1	Same Verbiage	OO	1	Explain and evaluate concepts and principles of geospatial technologies
OO2	Same Verbiage	OO	2	Describe equipment and processes used in geospatial technologies
OO3	Same Verbiage	OO	3	Describe principles of precision agriculture for map and sensor based systems
OO4	Same Verbiage	OO	4	Describe the meaning and use of sensors, controllers, and actuators
		OP		BUSINESS PLANNING AND OPERATION PROCEDURES
EC2	Same Verbiage	OP	1	Maintain receipts and disbursement records
EC3	Same Verbiage	OP	2	Maintain inventory records